Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

UNITED STATES
DEPARTMENT OF AGRICULTURE
LIBRARY

BOOK NUMBER Reserve
1.965
P2C76
no.2-21
Nov.-Dec.1940

GPO 8—7871
563972

1.965
P2C76
Reserve

LIBRARY
RECEIVED
OCT 9 - 1945
U.S. DEPARTMENT OF AGRICULTURE

CONTRIBUTIONS TOWARD A

FLORA OF NEVADA. NO. 2.

- - -

FAGACEAE OF NEVADA

by

C. H. MULLER

November 1, 1940.

Issued by

The Division of Plant Exploration and Introduction,
Bureau of Plant Industry,
U. S. Department of Agriculture,
Washington, D. C.

- - -

Work Projects Administration of Nevada,
Projects, O. P. 65-2-04-13, W. P. 658;
O. P. 165-2-04-21, W. P. 752.

- - -

Collaborator

University of Nevada.

Address all queries concerning this publication to the Division of Plant Exploration and Introduction, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.

677668
agri 561-55

CONTRIBUTIONS TOWARD A

FLORA OF NEVADA. NO. 2.

- - -

568173

FAGACEAE OF NEVADA

by

C. H. MULLER

November 1, 1940.

Issued by

The Division of Plant Exploration and Introduction,
Bureau of Plant Industry,
U. S. Department of Agriculture,
Washington, D. C.

- - -

Work Projects Administration of Nevada,
Projects, O. P. 65-2-04-13, W. P. 658;
O. P. 165-2-04-21, W. P. 752.

- - -

Collaborator

University of Nevada.

Address all queries concerning this publication to the Division of Plant Exploration and Introduction, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C.

FAGACEAE OF NEVADA

By C. H. Muller

Trees or shrubs with deciduous or evergreen, simple, alternate leaves and small often caducous stipules. Flowers monoecious, apetalous; the staminate in flaccid or erect aments, with irregularly lobed, bowl-like calyces; the pistillate one or a few in a much-reduced catkin with a stiff rachis, each surrounded by an involucre of scales, 3 stigmas, 3 carpels of which 2 often abort. Fruit a nut more or less enclosed in the involucre (a bur of spines or a cup of scales).

KEY TO GENERA

Staminate flowers in an erect ament with a stiff rachis; fruit of 1 to 3 nuts enclosed in a spiny bur- - - - - - -1. Castanopsis.

Staminate aments flaccid; fruit of 1 nut (acorn) enclosed or partly enclosed in a scaly cup - - - - - - - - - - - 2. Quercus.

1. CASTANOPSIS Spach. Chinquapin.

Pistillate flowers usually at the base of the staminate catkin, 1 to 3 in the involucre; fruit maturing the second year.

One species in our range.

1. CASTANOPSIS SEMPERVIRENS (Koll.) Dudley, in Merriam, N. Am. Fauna 16: 142. 1899.

Shrub 5 to 20 dm. tall; leaves evergreen, entire, oblong, usually obtuse 2 to 5 cm. long, yellowish-green above, golden-tomentose beneath; petioles 5 to 10 mm. long; burs 2 to 3 cm. thick.

Western Nevada: Douglas, Ormsby, and Washoe Counties.

2. QUERCUS L. Oak.

Leaves deciduous or evergreen, entire, toothed, or lobed; pistillate flowers not associated with the staminate, solitary and subsessile or several on a peduncle, one in each involucre of flattened scales; fruit maturing in one or two years, consisting of a one-seeded acorn with aborted ovules within the shell.

KEY TO SPECIES

1. Leaves relatively large (5 to 10 or more cm. long) with broadly rounded lobes several times longer than broad.

1. Q. Gambelii.

1. Leaves 1 to 4 cm. long, entire to mucronate or spinose-toothed.

2. Leaves broadly lanceolate to oblong, flat, entire, or if toothed, then glaucous beneath - - - 4. Q. vaccinifolia.

2. Leaves ovate to orbicular, undulate to coarsly spinose-toothed, if glaucous beneath, then markedly crisped.

3. Leaves markedly crisped, profoundly spinose-toothed, sub-orbicular, resinous-yellow-puberulent beneath

or rarely glaucous; the cups densely yellow-tomentose - - - - - - - - - - - - - - - - - 5. Q. Palmeri.

3. Leaves relatively flat, scarcely orbicular; cups not yellow-tomentose.

4. Leaves 1 to 2.5 cm. long, flat, the margins spinose-aristate or low-toothed, characteristically yellow-puberulent beneath.

3. Q. turbinella.

4. Leaves 2.5 to 4 cm. long, somewhat crisped, undulating to mucronate-toothed, gray-puberulent beneath - - - - - - - - - - - - - 2. Q. undulata.

1. QUERCUS GAMBELII Nutt., Journ. Acad. Phila. II. 1: 179. 1848.

Q. utahensis (A.DC.) Rydb., Bull. N. Y. Bot. Gard. 2: 202. 1901.

Leaves deciduous, shiny green and glabrate or sparingly stellate-puberulent above, dull green and velvety or glabrate beneath, the lobes broadly rounded with deep rounded sinuses or the tips occasionally subacute; petioles about 1.5 cm. long; fruit maturing in one year, the cup hemispheric or deeper, the scales much-thickened basally.

Southern Nevada: Clark and Lincoln Counties.

2. QUERCUS UNDULATA Torr., Ann. Lyc. N. Y. 2: 248. 1828.

Leaves 2.5 to 4 cm. long, ovate to oblong, undulately toothed, mucronate but not spinose-tipped, harshly pubescent;

petioles less than 1 cm. long; fruit maturing in one year, the cup hemispheric, the scales moderately thickened basally.

Southern Nevada?: This species occurs sparingly in Arizona and Utah and is to be expected in the southern counties of Nevada.

3. QUERCUS TURBINELLA Greene, W. Amer. Oaks 1: 37. 1889; 2: 59. 1890.

Q. subturbinella Trel., Mem. Nat. Acad. Sci. 20: 95. pl. 153. 1924.

Leaves deciduous, about 1.5 to 2.5 cm. long, ovate, obtuse or acute, spinose-toothed, flat, semi-glaucous, yellow-resinous-puberulent beneath; petioles 3 to usually 5 mm. long. Fruit maturing in one year; cups hemispheric, 10 to 12 mm. in diameter, the scales scarcely thickened.

Southern Nevada: Clark and Lincoln Counties.

4. QUERCUS VACCINIFOLIA Kellogg, Proc. Calif. Acad. 1: 106. 1855.

Q. chrysolepis vaccinifolia Engelm., Trans. Acad. St. Louis 3: 393. 1877.

Leaves oblong to broadly lanceolate, acute or rarely obtuse, entire or rarely spinosely toothed, flat, green and glabrate above, glaucous beneath; petioles about 1 cm. long or shorter; fruit maturing in one year; cups hemispheric, about 10 or 12 mm. in diameter, not yellow-tomentose.

Western Nevada: Washoe County.

5. QUERCUS PALMERI Engelm., Trans. Acad. St. Louis 3: 393. 1877.

Q. chrysolepis Palmeri Engelm. in Brewer & Wats., Bot. Calif. 2: 97. 1880.

Leaves evergreen, 2 to 3.5 cm. long, very thick, ovate to sub-orbicular, coarsely spinose-toothed, the margins much crisped, glaucous-green and glabrate above, glaucous or characteristically yellow-resinous-puberulent beneath; petioles about 3 mm. long; fruit maturing in two years; cups hemispheric or obconic, 1.5 to 2 cm. in diameter, densely yellow-tomentose; the scales not markedly thickened and only slightly protruding from the tomentum.

Southern Nevada: Clark County.